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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/813,951

03/31/2004

Vladimir Anatolyevich Aksyuk

34-5

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7590

06/15/2005

Lucent Technologies Inc.
Docket Administrator - Room 3J-219
101 Crawfords Corner Road
Holmdel, NJ 07733-3030

EXAMINER

CHERRY, EUNCHA P

ART UNIT

PAPER NUMBER

2872

DATE MAILED: 06/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/813,951

Applicant(s)

AKSYUK ET AL.

Examiner

EUNCHA P. CHERRY

Art Unit

2872

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10/20/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

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DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-6, 8-10 and 12-15 are rejected under 35

U.S.C. 102(b) as being anticipated by Miller et al (US 2001/0048265 A1).

Miller et al discloses a freely rotatable micromechanical plate apparatus, comprising: at least three rotatable plates (Fig. 4, one of the paired 18), each of said rotatable plates being suspended from a substrate (12) via a respective first spring (16); a moveable plate (14); at least three moveable plate attachment points (see Fig. 6, 54), each of said moveable plate attachment points being coupled to a respective one of said rotatable plates via respective ones of second springs (66) so that rotation of each of said rotatable plates about a respective axis transfers motion to the moveable plate attachment points; and at least three posts (Fig. 3B, 40), each of said posts coupling the movement of each of a respective one

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of said moveable plate attachment points to said moveable plate (see Fig. 3B). The moveable plate is a mirror (page 5, paragraph 71, line 6). The springs are deformable elastic elements (page 4, paragraph 59, line 5). The one of said springs is a relatively thin beam (see 16). The one of said springs is a folded set of beams (see Fig. 5B). At least one of said first springs is located along an edge of its associated rotatable plate and acts as the axis of rotation therefore (see Fig. 1A). Further, an additional plate is disposed (the other of the paired 18), the additional plate being coupled to at least one of the rotatable plates and being adapted to rotate the rotatable plate. The additional plate is coupled to said rotatable plate by at least one spring (see Fig. 6, one of 66s). The additional plate is adapted to rotate said rotatable plate using angle amplification (see Fig. 7B angle elevation of 66). At least a comb drive operable to move said additional plate (see the shape of 50 and 52).

A method for making a freely rotatable micromechanical plate apparatus including the steps of suspending and coupling are inherently met by the disclosure of the prior art.

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3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 7 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller et al in view of Hornbeck (US 5,535,047).

Miller et al discloses the claimed invention as set forth above except for at least one electrode is located below at least one of the rotatable plates. Hornbeck discloses at least one electrode is located below at least one of the rotatable plates (see Fig. 4, 26). It would have been obvious to one of ordinary skill in the art to use electrodes to rotate the rotatable plates because it is readily available in the art.

Conclusion

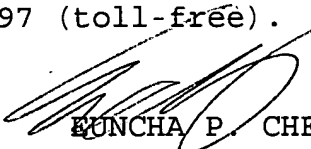
Any inquiry concerning this communication or earlier communications from the examiner should be directed to EUNCHA P.

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CHERRY whose telephone number is 571-272-2310. The examiner can normally be reached on M-F 6:30-4:00, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, DREW DUNN can be reached on 571-272-2312. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



EUNCHA P. CHERRY
Primary Examiner
Art Unit 2872

6/13/05